Shouryan Patil

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EDUCATION

M.Sc. Bioinformatics *(CGPA: 8.31)* — **Pimpri, Pune**
Dr. D. Y. Patil Arts, Commerce & Science College — *June 2023 – April 2025*

B.Sc. Biotechnology *(CGPA: 8.00)* — **Ganeshkhind, Pune**
Modern College of Arts, Science & Commerce — *June 2020 – April 2023*

Higher Secondary Education (12th Grade) *(60%)* — **Kasba Peth, Pune**
Acharya Shri D. B. Dadawala Junior College — *June 2019 – April 2020*

Senior Secondary Education (10th Grade) *(72.20%)* — **Shivajinagar, Pune**
Modern High School — *June 2017 – April 2018*

WORK EXPERIENCE

BVG Life Sciences Limited — **Chinchwad, Pune**
Computational biology and R&D Intern — *April 2024 – October 2024*

- **Advanced Molecular Docking:** Used AutoDock4 and AutoDock Vina to identify herbal ligands for disease-targeted proteins, aiding novel drug discovery.
- **Data Visualization & Analysis:** Leveraged R for docking result visualization and molecular interaction analysis, ensuring precise reporting.
- **Therapeutic Target Screening:** Conducted protein identification and ligand screening for multiple diseases, supporting drug discovery research.
- **Quality Assurance Expertise:** Performed stability testing of oral solid and liquid products using advanced lab instruments, ensuring compliance.

CODSOFT — **Remote**
Python Programming Intern — *February 2024 – February 2024*

- **Python Development Projects:** Built a To-Do List app, calculator, password generator, and Rock-Paper-Scissors game, showcasing problem-solving and programming skills.
- **GUI & Logic Implementation:** Developed interactive applications with user-friendly interfaces and functional logic using Python.

PROJECT

Microbial Genome GC Content Analyzer — **March, 2025 - March, 2025**

Developed a Python-based Microbial Genome GC Content Analyzer using Biopython for sequence parsing and Matplotlib for visualization. Implemented GC content calculation, sliding window analysis, statistical summaries, and automated FASTA handling with CSV export.

Drug Repurposing for Colorectal Cancer — **November, 2024 - February, 2025**

Conducted an in-silico drug repurposing study for colorectal cancer, targeting key oncogenic pathways (EGFR/MAPK, Wnt/β-catenin, and PI3K/AKT). Utilized molecular docking and molecular dynamics simulations to screen FDA-approved drugs. Identified Pazopanib and Brequinar as promising candidates with strong binding affinities and favorable pharmacokinetic profiles.

Automated Docking Pipeline with AutoDock Vina — **January, 2025 - January, 2025**

Developed a Python-based automation script for molecular docking with AutoDock Vina, enabling large-scale ligand screening. Automated docking, extracted binding affinities, and ranked ligands to accelerate drug discovery.

SKILLS

Computational Tools: Python | R | Linux | Bash scripting | HTML | CSS | JavaScript
Bioinformatics Software: AutoDock | GROMACS | Chimera | PyMOL
Data Visualization: Matplotlib | seaborn
Database Management: MySQL | UCSC Genome Browser
Relevant Courses: NGS | PHP | AutoDock | Linux | MD simulation | Data Analytics | Data Mining | Probability and Statistics

CERTIFICATIONS

Certifications: Genetics and NGS for Bioinformatics (Udemy) | Linux Tutorial (Great Learning) | My SQL Basics (Great Learning) | Business Intelligence using Power BI (Skill Nation) | R Programming Language (Great Learning) | Excel for Beginners (Great Learning) | Forests and Their Management (NPTEL)